System-of-Care Evaluation Brief

Management Information Systems in System-of-Care Communities

Computerized management information systems (MIS) are used to record electronically services and their associated costs primarily for billing and accounting purposes. These electronic systems are a valuable source of information for understanding patterns of service use. That is, the types of services received by an individual child and family, the frequency and amount of services received, and the length of time specific services were provided to treat children's emotional and behavioral problems. Management information systems vary tremendously in their complexity and usage depending upon the resources and needs of individual communities. They may be a simple means for preparing a bill from an individual provider or as complex as an integrated system in which services from multiple agencies can be recorded.

In 1999 and 2000, the Center for Mental Health Services funded 22 new communities to establish systems of care to serve children with serious emotional disturbance. To understand the services provided and their associated costs in each funded community, the national evaluation obtains and analyzes MIS data from funded communities according to the sophistication of available electronic data. As a first step toward obtaining these data, the national evaluation conducted a Web-based survey completed by local community staff knowledgeable about their MIS to determine whether the type, cost, and amount of services provided in each community were captured electronically. All 22 communities (a total of 24 separate sites) completed the survey. In addition, the survey obtained information about the extent to which MIS's could be linked across community agencies.

MIS Capability

Survey results indicated that 92% of the system-of-care communities used an MIS for tracking mental health services and costs data at their primary mental health agency. Mental health services and costs data were also captured at 46% of the social service agencies, 25% of the juvenile justice systems, 29% of the educational systems, and 29% of the physical health agencies.

System-of-Care Evaluation Briefs report findings from the National Evaluation of the Comprehensive Community Mental Health Services for Children and Their Families Program funded by the Center for Mental Health Services of the Substance Abuse and Mental Health Services Administration. The Program provides six-year grants to states, political subdivisions of states, American Indian Tribes, tribal organizations, and territories to support the development of community-based systems of care for children with serious emotional disturbance and their families. Systems of care are developed using an approach that emphasizes integration of services through collaborative arrangements between child-serving sectors such as education, child welfare, juvenile justice, and mental health; youth and family caregiver participation; and cultural and linguistic competence of services. The Briefs are published monthly and are sponsored by the Child, Adolescent and Family Branch of the federal Center for Mental Health Services.

National Evaluation
Comprehensive Community Mental Health Services for Children and Their Families Program

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When mental health services were captured in the MIS of agencies other than mental health, only some grantees had access to this information. Grantees could access mental health data in the MIS of social service agencies of 36% of the communities, in the MIS of juvenile justice agencies of 33% of the communities, and in the MIS of education or physical health agencies of 29% of communities. In more practical terms, MIS linkage of services and costs information across agencies was minimal. Only about 17% of the grantees could link their MIS data with that of social service agencies, and only 9% of the grantees could link with MIS data in juvenile justice, educational, or physical health agencies, when access to these data was possible. Yet, those communities with access to an MIS in other agencies actually did use data from those agencies. When linkage was possible, generally a unique identifier or name was required to link data.

Services Provided

Table 1 shows the percentage of sites that reported offering each of 22 typical services. All 24 sites offered case management, family therapy, and assessment or evaluation. Almost all communities offered individual therapy, group therapy, medication treatment and monitoring, crisis stabilization, transportation, recreational activities, and flexible funds. Services least frequently offered were transition services, independent living services, and residential therapeutic camp. Generally, system-of-care communities offered a wide array of services; however, the range of available services varied slightly among the communities.

Not all services available in each were captured in that community's MIS. Table 2 presents the percentage of communities in which each service was captured in an MIS. Although services were offered, they were not consistently captured in an MIS. For example, although assessment or evaluation, case management, and family therapy were offered in all communities, only about three-fourths of the communities recorded these services in their MIS. Even usual outpatient billable mental health services such as individual therapy, group therapy, and family therapy were not consistently captured in MIS's. Individual therapy was captured in 87% of the communities, group therapy in 83%, and family therapy in 75% of the system-of-care community MIS's.

Services in restrictive settings, such as inpatient hospitalization, residential treatment center, and therapeutic group home were usually captured in an MIS as an episode with an admission date and a discharge date. These services were captured in an MIS in most, but not all, communities that offered these services. Eighty-five percent of the communities recorded inpatient hospitalization in their MIS; residential treatment center and therapeutic group home services were captured in 75% and 71% of the

Table 1
Array of Services Provided in 24 Funded Communities

Services Provided	Percent of Communities Providing Service
Case management	100%
Family therapy	100%
Assessment or evaluation	100%
Crisis stabilization	96%
Recreational activities	96%
Individual therapy	96%
Medication treatment and monitoring	96%
Group therapy	96%
Transportation	96%
Flexible funds	96%
Family preservation	92%
Therapeutic foster care	92%
Family support services	92%
Therapeutic group home	88%
Respite care	88%
Inpatient hospitalization	83%
Residential treatment center	83%
Behavioral aide	79%
Day treatment	75%
Transition services	67%
Independent living services	58%
Residential therapeutic camp	54%

Table 2
Percentage of Communities That Captured Services in an MIS

	Number of Communities Offering Service	Percent of Communities Capturing Service in MIS
Day treatment	18	89%
Individual therapy	23	87%
Inpatient hospitalization	20	85%
Behavioral aide	19	84%
Medication treatment and monitoring	23	83%
Group therapy	23	83%
Case management	24	79%
Crisis stabilization	23	78%
Residential treatment center	20	75%
Family therapy	24	75%
Transition services	16	75%
Therapeutic foster care	22	73%
Therapeutic group home	21	71%
Assessment or evaluation	24	71%
Residential therapeutic camp	13	69%
Family preservation	22	68%
Respite care	21	62%
Flexible funds	23	61%
Family support services	22	59%
Recreational activities	23	57%
Independent living services	14	57%
Transportation	23	52%

communities, respectively. Less traditional mental health services such as family preservation, respite care, recreational activities, and transportation were captured in an MIS in less than 70% of the communities that offered these services.

Conclusions and Recommendations

Services information is important in billing and program sustainability. The services and costs survey of the communities funded in 1999–2000 showed that a broad array of services was offered in each community; however, capturing service information in a computerized MIS was inadequate. Each community reported providing services that were not captured in an MIS, and, for services captured, limited details about those services were available in the MIS. Data linkages between agencies were also limited. Most funded communities had access to services and costs information from primary mental health agencies, but not from other agencies. About one in five system-of-care communities had access to services and costs information from social service agencies, while fewer system-of-care communities had access to services and costs information from juvenile justice, educational, and physical health agencies. Linkages among child-serving community agencies are important in service coordination and planning, and MIS linkages provide another avenue for interagency communication. There remains a strong need in system-of-care communities to build information technology capacity to enable cross-agency data linkage.

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